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| APPLICATION NO.                | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO.        |  |
|--------------------------------|-----------------|----------------------|------------------------|-------------------------|--|
| 10/027,645                     | 12/20/2001      | Didier Letourneur    | SP00-384               | 1481                    |  |
| 22928                          | 7590 03/15/2004 |                      | EXAM                   | EXAMINER                |  |
| CORNING INCORPORATED SP-TI-3-1 |                 |                      | GRIFFIN, WALTER DEAN   |                         |  |
| CORNING, NY 14831              |                 |                      | ART UNIT               | PAPER NUMBER            |  |
|                                |                 |                      | 1764                   | ***                     |  |
|                                |                 |                      | DATE MAILED: 03/15/200 | DATE MAILED: 03/15/2004 |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application No.   | Applicant(s)  |  |  |  |  |
|---|---|---|--|--|--|--|
| •   | 10/027,645  | LETOURNEUR ET AL.   |  |  |  |  |
| Office Action Summary   | Examiner  | Art Unit  |  |  |  |  |
|   | Walter D. Griffin   | 1764  |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply  | pears on the cover sheet with the   | correspondence address  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPL' THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a repl - If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 36(a). In no event, however, may a reply be tily within the statutory minimum of thirty (30) dawill apply and will expire SIX (6) MONTHS from a cause the application to become ABANDON | mely filed<br>ys will be considered timely.<br>n the mailing date of this communication.<br>ED (35 U.S.C. § 133). |  |  |  |  |
| Status  |   |   |  |  |  |  |
| 1) Responsive to communication(s) filed on 27 A   | ugust 2002.   |   |  |  |  |  |
| ,   | s action is non-final.  |   |  |  |  |  |
| ·—  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |   |  |  |  |  |
| closed in accordance with the practice under E  | Ex parte Quayle, 1935 C.D. 11, 4  | .53 O.G. 213.   |  |  |  |  |
| Disposition of Claims   |   |   |  |  |  |  |
| 4) Claim(s) 1-28 is/are pending in the application  |   |   |  |  |  |  |
|   | 4a) Of the above claim(s) <u>22-28</u> is/are withdrawn from consideration.   |   |  |  |  |  |
| 5)⊠ Claim(s) <u>1-4,20 and 21</u> is/are allowed.   | Claim(s) <u>1-4,20 and 21</u> is/are allowed.   |   |  |  |  |  |
| 6)⊠ Claim(s) <u>5-19</u> is/are rejected.   | •   |   |  |  |  |  |
| · — · · · — ·   | Claim(s) is/are objected to.  |   |  |  |  |  |
| 8) Claim(s) are subject to restriction and/o  | or election requirement.  |   |  |  |  |  |
| Application Papers  |   |   |  |  |  |  |
| 9)☐ The specification is objected to by the Examiner.   |   |   |  |  |  |  |
|   | D)⊠ The drawing(s) filed on <u>20 December 2001</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner.  |   |  |  |  |  |
|   | Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |   |  |  |  |  |
| •   | Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |   |  |  |  |  |
| 11) ☐ The oath or declaration is objected to by the E   | xaminer. Note the attached Office   | e Action or form PTO-152.   |  |  |  |  |
| Priority under 35 U.S.C. § 119  |   |   |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document  | ts have been received.<br>Is have been received in Applica<br>wity documents have been receiv   | tion No   |  |  |  |  |
| • •   | application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.                               |   |  |  |  |  |
| See the attached detailed Office detion for a list  | of the certified sopies not reserv  | ou.   |  |  |  |  |
| Attachment(s)   |   |   |  |  |  |  |
| 1) Notice of References Cited (PTO-892)   | 4) Interview Summar   |   |  |  |  |  |
| 2)  | Paper No(s)/Mail D  5) Notice of Informal   | Pate Patent Application (PTO-152)   |  |  |  |  |
| Paper No(s)/Mail Date <u>2.3.4</u> .  | 6)  |   |  |  |  |  |

Application/Control Number: 10/027,645

Art Unit: 1764

#### **DETAILED ACTION**

### Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-21, drawn to a method for maintaining a ratio of gas volume to liquid volume in a segmented gas/liquid flow along a reactor containing monolithic catalyst in beds in series, classified in class 585, subclass 263.
- II. Claims 22-28, drawn to a reactor using a monolithic catalyst, classified in class422, subclass 190.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed can be used to practice another and materially different process such as a process in which the gas and liquid are not segmented.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Kees van der Sterre on March 2, 2004, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-21. Affirmation of this election must be made by applicant in replying to this Office action. Claims

Application/Control Number: 10/027,645

Art Unit: 1764

22-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5-10 are indefinite because it is unclear what is encompassed by the expression "near or at the Taylor flow regime" in claim 5. The word "near" is a relative term and has no definite meaning in the art.

Claim 6 is also indefinite because the expression "the channels" lacks proper antecedent basis.

Claim 11 is indefinite because the expression "the product containing liquid" lacks proper antecedent basis.

Application/Control Number: 10/027,645

Art Unit: 1764

Claims 12-19 are indefinite because it is unclear what is encompassed by the expression "near or at the Taylor flow regime" in claim 12. The word "near" is a relative term with no definite meaning in the art.

## Allowable Subject Matter

Claims 1-4, 20, and 21 are allowed.

Claim 12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 5-11 and 13-19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for indicating allowable subject matter is that the prior art of record does not disclose or suggest a process as claimed in which segmented flow is initiated through monolithic beds and in which additional amounts of gas are injected into the spaces between the beds.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is (571) 272-1447. The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

Page 5

Application/Control Number: 10/027,645

Art Unit: 1764

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Walter D. Griffin Primary Examiner Art Unit 1764

WG March 10, 2004